size as the original, viz., 24 feet by 12. The artist to whom the task was intrusted was Giacomo Raffaelle, and the men under his direction, eight or ten in number, were engaged for eight years on it. The mosaic cost more than seven-thousand pounds, and afterwards came into the possession of the Emperor of Austria.

Such, then, is the mode of producing the delicate specimens of mosaic which are adapted rather for pictures than for floors or pavements. The latter are produced in a rougher way, with less costly materials, and in pieces of larger size. In most cases the separate pieces are called "tiles," and are made of prepared clay, though in other instances pieces of marble or stone are employed. Of the pavement before alluded to, as having been dug up near the East-India House, in Leadenhall-street, Mr. Fisher remarks:—"In this beautiful specimen of Roman mosaic, the drawing, colouring, and shadows are all effected with considerable skill and ingenuity by the use of about twenty separate tints, composed of tesselle (cubical pieces) of different materials, the major part of which are baked earths; but the more brilliant colours of green and purple, which form the drapery, are glass. These tesselle are of different sizes and figures, adapted to the situations they occupy in the design. They are placed in rows, either straight or curved, as occasion demanded, each tessella presenting to those around it a flat side: the interstices of mortar being thus very narrow, and the bearing of the pieces against each other uniform, the work in general possessed great strength, and was very probably, when uninjured by damp, nearly as firm to the foot as solid stone. The tesselle used in forming the ornamented borders were in general somewhat larger than those in the figures, being cubes of half an inch."

The ecclesiastical architecture of the middle ages was one of the means of reviving the use of tessellated pavements; for many specimens of tiles, once used for this purpose, are from time to time discovered in such buildings. A chequered flooring of black and white marble might be deemed a sort of mosaic; but the specimens here alluded to were tiles, each of which had its own pattern, independent of the combined pattern which all might have presented when laid side by side. In the Norman churches it was a frequent custom to lay down such tiles as a flooring for the high altar, and before shrines: at first these tiles were irregularly shaped, and were formed of glazed brick or pottery, painted with some Scriptura device on the surface; but afterwards the plan was adopted of using carefully squared pieces, so as to produce greater neatness of joint. Wreaths, circles, heraldic ornaments, and various other devices, were painted upon the tiles, together with griffins, spread-eagles, fleur-de-lis, &c. Various animals, such as the fox, the cock, and others, supposed to have had a symbolic meaning, were also adopted.

It was long known to antiquaries that a mosaic pavement existed in the Chapter-House at Westminster, and this was laid open to view a few years ago, when the tiles, each of which bore a particular device, were found to exhibit as brilliant colours as when first laid down, the sizes varying from about 6 to 10 inches square. At Little Marlow Priory, at Lewes Priory, and at Great and Little Malvern, other specimens have been met with. Towards the close of the last century the attention of antiquaries was directed towards a mosaic pavement found at Caen in Normandy, the separate tiles of which were supposed to be emblazoned with the heraldic bearings of the barons who accompanied William of Normandy to England. The pavement is supposed to have belonged to a building forming part of a convent or abbey built by William and to have covered the floor of a hall measuring 150 feet by 90. The tiles were about 5 inches square, made of baked earth. Eight rows of the tiles, running from east to west, bore the arms of William's followers, and between these were ornamental compartments of tiles, formed so curiously into a maze or labyrinth, that it is said the windings of the lines forming the figure or device in each compartment extended to a mile in length. Of the state of this pavement at the time of the French Revolution, Dr. Ducarel said, "Notwithstanding these rooms have been used as granaries upwards of four hundred years, neither the damps of the wheat, the turning and shifting of the grain, nor the wooden shoes and spades of the peasants, constantly employed in bringing in and cleansing the wheat, have in the least damaged the floor, or worn off the painting from the tiles. The only injury this floor has received is the taking up some few of the tiles in order to open funnels through the floor for the more ready conveyance of the corn into the rooms beneath."

Tessellated pavements, like stained glass, have recently come again into fashion, in giving to ecclesiastical buildings a richness of decoration which has not been customary during the last few centuries. Many such pavements have been laid down in churches within a recent period, of which one of the most notable specimens is in the Temple Church at London. This pavement was made because, on renovating this ancient and beautiful building, it was found that a tessellated pavement had formerly existed there, which had for ages been buried beneath a pavement of another kind. The following is a description of the new tessellated flooring which has attracted so much the attention of the visitors to the Temple Church within the last two or three years:—"The ground is a dark-red or chocolate, but so elaborately covered with the amber or yellowish ornaments as to make the latter the prevailing hue. The patterns form first, divisions of various breadth (the widest in the centre of the central avenue), extending side by side, from the entrance-door to the farthest end of the chancel. Within each division there is no alteration of pattern, but the divisions themselves, as compared with each other, present considerable differences. The two most striking are those next to the broad central one, where, as we pace along, we have the lamb on one side of us and the winged horse on the other, the emblems of the two societies ('Middle Temple' and 'Inner Temple') to which the church belongs. The former is founded on the device of St. John; the latter, it is supposed, on the poverty of the Knights Templars at the outset of their career, when two knights rode one horse. Among the other ornaments of the pavement are a profusion of linked-tailed animals in heraldic postures; lions, cocks, and foxes; tigers, with something very like mail upon their shoulders; basilisks and other grotesques. There are also copies of designs of Anglo-Saxon origin, as figures playing musical instruments; and one illustrative of the story of Edward the Confessor, the evangelist John and the ring, a design which at once tells us from whence the materials for the pavement have been borrowed, viz., the Chapter-House, Westminster Abbey. The pavement formed by the tiles is as strong and imperishable as it is beautiful. The tiles are perforated all over with small holes in the under side; consequently, when they are laid in the cement prepared to receive them, and pressed down, the latter rises into these perforations, and hardening there, binds the whole indissolubly together."—*London*, No. 102.

The tessellated tiles of past ages were frequently, if not generally, called "encaustic" tiles, by which we are to understand (if the name be correctly applied) a kind of tile in which the device is in some way or other "burnt in," such being the meaning of the word "encaustic." Now, if the pattern were merely painted on the surface, and then burnt in or vitrified by the action of a furnace, the tiles would scarcely come under the denomination of mosaic or tessellated; and such seems to have been the case in many instances, so far as can be gathered from the descriptions. There was discovered, some years ago, near Malvern, an ancient Roman kiln, in which it is supposed encaustic tiles were baked. It consisted of two parallel arches about 35 feet in length, each 2 feet 3 inches wide by 15 inches high. These arches were composed of layers of brick and tile, and had a flooring composed of a less vitrifiable kind of clay than themselves. Below the floor was the fire-place, about 15 inches in height, and there was a flue at each end of the arches. Near the kiln were found several tiles similar to those in Malvern Church; and from this circumstance the purpose of the kiln itself has been inferred.

Whatever may have been the process followed by the early artists, the tessellated tiles now coming into use for pavements and floors are made by moulding and burning, but without any painting, properly so called. At the large porcelain-works in Staffordshire, Worcester, and elsewhere, this is becoming a regular branch of manufacture, and is conducted (in one of its forms at least) in a manner which we will now briefly describe.

The tessellated tiles are made of two differently coloured clays, one embedded in the other, and disposed so as to form an ornamental device. Three or more colours may be used by somewhat varying the process, but two is the usual number; and whatever may be the colours, the tile is first made entire in one colour, with a depression to be afterwards filled up with clay of one or more other colours. We will suppose the tile to present two colours, a yellow device on a brown ground. In the first place the modeller forms in stiff clay an exact model or representative of one of the tiles, about an inch thick, cutting out to the depth of a quarter of an inch the depression which constitutes the device. When this is properly dried, a mould is made from it in plaster of Paris, and from this mould all the tiles are produced one by one. The ground-colour of the tile is that which is adopted to cast in this mould. This, which we suppose to be brown, is mixed with water to a stiff consistency, and pressed into the mould by the aid of the press. On leaving the press it presents the form of a damp, heavy, square tile of clay, with an ornamental device formed by a depression below the common level of the surface, as in the original model. The next stage is to fill up this depression with the yellow-coloured clay, so as to bring both colours to a common level. To effect this the yellow clay, so far from being made stiff like the first, has a much more fluid consistency. The tile being laid on a bench, the workman plasters the yellow clay on it by means of a kind of trowel, filling up every part of the depressed device. When this is completed, the tile is allowed to remain six or eight weeks, to dry gradually, as a displacement at the joints would occur if the outer surface became quite dry when the interior was yet wet. Each tile is next scraped all over the surface with an edge-tool, till the superfluous portion of the second clay is removed, and the two clays be rendered properly visible, one forming the ground and the other the device. In this state the tiles are put into a kiln or oven, where they are baked in a manner nearly resembling the baking of earthenware or porcelain, the degree and duration of the process having especial reference to the kinds of clay used. Here a point is involved which calls for much attention on the part of the maker. As one of the clays is used in a more fluid state than the other, it would, under most circumstances, contract to a greater degree by heating; but the selection is so made that, notwithstanding the difference of consistency in the two clays, they may contract equally, and leave no unsightly gaps at the joinings. When the tiles are sufficiently baked, they are cooled gradually, and then dipped into a vessel of liquid "glaze," in the same manner as articles of porcelain. After this they are exposed for twenty-four hours to the heat of a "glazing-oven," by which the glaze is made to adhere to surface, and the tiles then appear with whatever ornamental device may have been designedly given to them.

HOLBORN AND FINSBURY SEWERS.

The result of the last meeting of the commissioners for Holborn and Finsbury was rather unusual. All the tenders sent in for the Gray's-inn-lane sewer exceeded the surveyor's estimate very largely, and neither was accepted; and for the Charlotte-street sewer, (Bedford square) 3,400 feet long, estimated at nearly 4,000*l*., only one tender was sent in and this was returned unopened. The following is a list of the tenders for the Gray's-inn-lane and Liquorpond-street sewer, 800 feet in length:—

Eldred	£1,186
Cooper	1,002
Hill	940
Ward	940

No tender accepted.

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